

REMARKS

Claims 11-30 are pending. Claims 11-19, 21, and 24-30 are rejected under 35 USC 102(b) as being anticipated by U.S. patent publication 2002/0027885 (Ben-Ami). Claims 20 and 22-23 are rejected under 35 USC 103(a) as being unpatentable over Ben-Ami in view of US patent 6,788,646 (Fodor et al.).

Claim 30 is amended herein. No new matter is added. Claims 11-30 are presented for examination. Claims 11, 26, and 28 are independent.

Response to rejections under 35 USC 102(b)

1. To anticipate the invention under 35 USC 102, Ben-Ami must teach the method and structure as claimed. First, consider Applicants' network structure. Applicants' par. 019, lines 1-4: *"The FIGURE shows a network made up of nodes and links. In this case the marginal nodes R 1 to R 10 are indicated by solid circles. The internal nodes are indicated by non-solid circles. Links are illustrated by connectors between nodes."*

2. Regarding **claim 11**, Examiner asserts correspondence between the "marginal nodes" of Applicants and the "edges" of Ben-Ami. However, the "edges" of Ben-Ami are not nodes. They are links. Ben-Ami par. 64, lines 8-9: *"The terms "link" and "edge" are used essentially interchangeably in the present specification and claims."* Thus, the correspondence does not hold.

3. Examiner cites the network topology of Ben-Ami FIG 2. This is a ring topology in which all nodes A, B, C, D are of the same type. Thus, if one considers the nodes to be internal nodes, then there are no marginal nodes. On the other hand, if one considers them marginal nodes, as Examiner does for claim 28, then there are no internal nodes. In either case, Ben-Ami does not meet **claims 26 and 28** herein, which recite both internal and marginal nodes.

4. The nodes A, B, C, and D of Ben-Ami FIG 2 are all switches (par. 77). Thus they do not include source or sink nodes as recited in claim 13 herein. In Applicants' par. 10, lines

9-15: "*A marginal node in this case can be a network access node (also known as an ingress node) or a network output node (also known as an egress node), as well as an end or start node of a data transmission located in the communication network, i.e. a node of the network which represents a source or sink as regards the traffic.*"

5. The network of Ben-Ami FIG 2 is a circuit-switching network (par. 76, lines 4-5). Thus, it does not meet the packet-switching limitations of claims 26 and 28 herein.

6. The network of Ben-Ami FIG 2 is a non-blocking network (par. 77). This has nothing to do with limit values, but is a result of providing enough physical circuit capacity for each switch A, B, C, and D (par. 77). In order to increase Ben-Ami's network capacity, he must add physical circuits (FIG 9, LNX9 and LNX10, par. 79). This is not a traffic limit value optimization as claimed, but an addition of physical circuits.

7. Turning to the method, Ben-Ami does not set limit values the same for all marginal pairs of nodes. Instead he starts with a network defined as non-blocking (FIG 2), not due to any limit values, but due to the physical capacity of connected circuits. Furthermore, overloading occurs not by raising any limit value, but because the circuits cannot physically handle more traffic. More circuits must be added (FIG 9, par. 79).

8. Examiner cites Ben-Ami par. 153 as corresponding to Applicants' method. However, the method of Ben-Ami expands the physical capacity of channels beyond that of a switch by adding physical circuits (as shown in FIG 9 compared to FIG 2). In Ben-Ami par. 150, lines 1-4: "*This paper proposes a more flexible approach to capacity conservation and blocking prevention. The idea is to allow a switch of a given capacity  $c$  to be physically connected to links with total capacity exceeding  $c$ .*" In Ben-Ami par. 177, lines 1-2: "*The idea proposed in this paper is to expand the capacity of channels beyond that of the switch.*" The only part of Ben-Ami's method that appears to have any relevance is part E (pars. 199-209).

9. However, part E is unrelated to Applicants' claimed method. Part E selects a route for a new connection request regardless of feasibility, using criteria not described or enabled

(par. 202, lines 6-13). The method then makes room for the new request on the selected route by shifting some existing traffic to specific other route(s). This has nothing to do with Applicants' claimed method. Thus, Ben-Ami fails to teach either Applicants' structure or method as claimed.

10. Ben-Ami's method explicitly excludes raising limit values of nodes per par. 12, lines 12-18: "*The method includes expanding the capacity value of at least an individual communication edge from among the first plurality of communication edges, the individual edge connecting first and second communication nodes from among the second plurality of communication nodes, without expanding the capacity value of the first communication node.*"

Response to rejections under 35 USC 103(a)

11. Fodor does not address the distinctions above, so the proposed combination does not meet the limitations of any claims herein.

Conclusion

For anticipation under 35 USC 102, a reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present (MPEP 706.02(a) IV). The identical invention must be shown in as complete detail as recited in the claim, and the elements must be arranged as required by the claim (MPEP §2131). These criteria are not met by Ben-Ami for multiple reasons as argued herein. Accordingly, Applicants request withdrawal of the 35 USC 102 rejections.

M.P.E.P. 2143.03 provides that to establish *prima facie* obviousness of a claimed invention, all words in a claim must be considered in judging the patentability of that claim against the prior art. Fodor does not address the distinctions of Ben-Ami argued under 35 USC 102 herein. Thus the proposed combination does not support the obviousness rejections of the claimed invention. Applicants feel this application is in condition for allowance, which is respectfully requested.

The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including fees for additional claims and terminal disclaimer fee, or credit any overpayments to Deposit Account No. 19-2179.

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